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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/840,551	04/23/2001	Markus Doetsch	GR 98 P 2930 P	3927
24131	7590	03/29/2004	EXAMINER	
LERNER AND GREENBERG, PA P O BOX 2480 HOLLYWOOD, FL 33022-2480			PHAN, HUY Q	
			ART UNIT	PAPER NUMBER
			2685	

DATE MAILED: 03/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/840,551

**Applicant(s)**

DOETSCH ET AL.

**Examiner**

Huy Q Phan

**Art Unit**

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. Specification is objected to because of the following informalities: in page 1 line 17, page 5 line 7 and in claim 1 line 7, "oscialloctor" should be changed to - oscillator- .  
Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Genossar et al. (US-6,643,321) in view of Amrany et al. (5,278,865).

Regarding claim 1, Genossar et al. disclose in figure 2, a transceiver configuration for a communication terminal, comprising: an A/D converter (50) outputting a first digital data signal; a D/A converter (34); a controllable oscillator circuit (86, fig. 4B) connected to said A/D converter and to said D/A converter, said controllable oscillator circuit having a reference oscillator with an oscillating crystal (col. 15, lines 34-49) as a resonator and outputs a sampling clock (88) received by said A/D converter and said D/A converter (fig. 4B); a digital data processing circuit (54, 58, 62, 68, 30) connected to

said A/D converter and to said D/A converter and receives the first digital data signal output by said A/D converter and processes it further and outputs a second digital data signal to said D/A converter; and a frequency section (24 and 38) being at least one of a radio-frequency section and an intermediate-frequency section connected to said A/D converter, to said D/A converter and to said controllable oscillator circuit, said frequency section having a frequency converter stage [inherent to downconverter (44) and upconverter (42)] operating with a beat frequency derived from said controllable oscillator circuit (86).

Genossar et al. do not disclose expressly said A/D converter, said D/A converter, said data processing circuit and said controllable oscillator circuit, apart from said oscillating crystal of said reference oscillator, being constructed as a monolithically integrated circuit so that of said controllable oscillator circuit, only said oscillating crystal being implemented as an external component. Integrated circuit was known in the art and was desirable; thus it can be said to be "needed" in the art. Since it has been held that providing integrated circuit where needed is obvious [In re Larson, 340 F.2d 965, 967, 144 USPQ 347, 349 (CCPA 1965); In re Wolfe, 251 F.2d 854, 855, 116 USPQ 443, 444 (CCPA 1958)].

However in analogous art, Amrany et al. disclose in figure 7, said A/D converter (203), said D/A converter (202), said data processing circuit (104, 108, 204, 207, 110, 701, 111) and said controllable oscillator circuit (113), apart from said oscillating crystal of said reference oscillator, being constructed as a monolithically integrated circuit so that of said controllable oscillator circuit, only said oscillating crystal being implemented

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as an external component (col. 6, lines 27-37). Since Genossar et al. and Amrany et al. are related to communication transceiver; therefore, it would have been obvious at the time the invention was made to one of ordinary skill in the art to modify the system of Genossar et al. by specially having said A/D converter, said D/A converter, said data processing circuit and said controllable oscillator circuit, apart from said oscillating crystal of said reference oscillator, being constructed as a monolithically integrated circuit so that of said controllable oscillator circuit, only said oscillating crystal being implemented as an external component as taught by Amrany et al. in order to reduce the size and cost of the device.

Regarding claim 3, Genossar et al. and Amrany et al. disclose a transceiver configuration for a communication terminal as recited in the rejection of claim 1. Genossar et al. further disclose wherein said digital data processing circuit having a channel estimator (54) (col. 11, lines 1-18).

Regarding claim 4, Genossar et al. and Amrany et al. disclose a transceiver configuration for a communication terminal as recited in the rejection of claim 3. Genossar et al. further disclose wherein said digital data processing circuit including a data detector (56) connected to said channel estimator (col. 11, lines 27-50).

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Genossar et al. in view of Henrion (US-5,594,612).

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Regarding claim 2, Genossar et al. and Amrany et al. disclose the transceiver configuration as recited in the rejection of claim 1. Genossar et al. further disclose wherein said digital data processing circuit having a digital filter (52 or 32). Genossar et al. and Amrany et al. fail particularly show wherein said digital data processing circuit having a digital modulator. However, Henrion teaches in figure 2, a digital data processing circuit having a digital modulator (43). Since, Genossar et al. and Henrion are related to digital data processing circuit; therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Genossar et al. by specifically adding a digital modulator into the digital data processing circuit as taught by Henrion for purpose of being constructed as a monolithically integrated circuit in order to reduce the size and cost of the device.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Boesch et al. (US-6,535,561) disclose dual mode modulation systems.
- b) Wu et al. (US-6,370,188) disclose a telecommunication receiver.
- c) Taylor et al. (US-5,764,693) disclose wireless radio modem.
- d) Chennakeshu et al. (US-5,283,811) disclose digital cellular radio.
- e) Itoh et al. (US-6,154,640) disclose method and apparatus for communication.
- f) Powell (US-5,790,614) discloses non pullable reference oscillator.

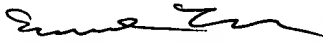
g) Subramarian (US-5,361,276) disclose digital signal receiver.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huy Q Phan whose telephone number is 703-305-9007. The examiner can normally be reached on 8AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Urban F Edward can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP  
Mar. 18, 2004

  
EDWARD F. URBAN  
PATENT EXAMINER  
TECHNOLOGY CENTER 2600